In the Specification:

Please replace the paragraphs starting on line 4 of page 5 and ending on line 9 of page 7 in the application with the following paragraphs. The replacement paragraphs should read as follows:

As shown in Figs. 1 and 2, a typical power generation facility may include an industrial turbine 10, a first electric generator 12, a heat recovery boiler or steam generator 14, a steam turbine 16, and a second electric generator 18. Alternatively, such a system may include aeroderivative turbine 20, an HRSG 14, a steam turbine 16 and a second electic generator 18. Each facility has certain, previously enumerated advantages and disadvantages, however, the present invention includes many of the advantages and overcomes many of the disadvantages of the prior art systems.

Fig. 3 shows a schematic of a system 30 of the present invention. While those skilled in the are will understand that any number of turbines can be utilized, a first industrial gas turbine 31 is provided for turning or driving a first generator 32. The IG turbine 31 may be any suitable turbine, but is preferably General Electric Frame 7 EA or Frame 7 F. A fuel system 34 provides the IG turbine 31 with a suitable fuel for combustion, such as natural gas or refined oil products. The exhaust gas from the IG turbine 31 is fed via suitable conduit or duct to a first HRSG unit 36.

A second, aeroderivative turbine 40 is provided for turning or driving a second generator 42. Again, it is the combination of an aeroderivative turbine 40 with an industrial turbine 31 that is unique and those skilled in the art will understand that any number of turbines can be utilized. The fuel system 34 provides a suitable fuel supply for the AD turbine 46. Typically, the AD turbine 40 burns natural gas or refined oil products. Exhaust gas from the AD turbine 40 is passed via suitable conduit or duct to a second HSRG unit 44. In a preferred embodiment, the AD turbine 44 is a General Electric LM6000 aeroderivative turbine.

The system 30 of the invention preferably includes at least one HRSG. In the illustrated embodiment, an HRSG is provided for each gas turbine 31, 40, however, it should be understood

that multiple gas turbines may be exhausted into a single HRSG. The HRSG units convert the excess, unused energy (in the form of heat and unburned fuel) from the gas turbines 31, 40 into high pressure, high temperature steam, which may be used to drive a steam turbine 46, 48. This greatly increases the efficiency of the system 30. In a preferred embodiment, the HSRGs may have supplementary firing equipment installed therein. This additional equipment typically includes burners which further aid in heating and pressurizing steam for the steam turbines 46, 48. The burners may be fueled, for instance, with natural gas or refined oil products or may use other fuels such as heavy oil or coal. The use of supplementary firing equipment may increase the output of the steam turbines 46, 48 by as much as 100% and may increase the overall system 30 output by 30%. A water supply system 50 provides water to the HRSGs 36, 44 for the production of steam. Preferably, the water supply system provides demineralized water.

In an alternative embodiment, the HRSGs 36, 44 may be unfired or lack supplementary firing equipment. This may decrease capital and maintenance costs. In this configuration, the HRSG merely transfers heat from the hot turbine exhaust gas to water or steam via convective heat transfer.

The steam produced in the HRSG units 36, 44 is passed, via suitable duct or conduit, to a steam turbine 46, 48. The steam turbine 46, 48 drives or turns a third generator 52, 54. Any number of steam turbines may be used, depending, for instance, on the number of gas turbines and HRSG units in the system.

In operation, the present system 30 provides an aeroderivative turbine 40 which may be put into service or brought online in a relatively short amount of time. This allows the system 30 to generate electric power, albeit at a somewhat decreased capacity, shortly after the system is started. The exhaust from the AD turbine 40 is ducted to an HRSG 44 to begin steam production for the steam turbine 48. Since a typical steam turbine operating on steam produced in part using waste gas from an IG turbine cannot begin to operate until the IG turbine is spun up, the system 30 of the invention also permits use of the steam turbine at an earlier stage of the power production process, as compared to the prior art systems. The system preferably includes

suitable monitoring and control equipment to determine when the HRSGs 36, 44 are producing sufficient steam to start the steam turbines 46, 48. Until that time, the steam generated is trapped within the HRSG or vented to atmosphere. At the same time the AD turbine 40 is started, an industrial gas turbine 31 is also started. These relatively bigger IG turbines 31 require a longer time to reach proper operating conditions, as compared to the AD turbines 40. However, once these IG turbine 31 begins to generate power, their power output can greatly exceed that of the AD turbine 40. The exhaust from the IG turbine 31 is also ducted to a corresponding HRSG 36 to further provide steam to power the steam turbine 46. Once the HRSGs 36, 44 are producing sufficient steam, the steam turbine 46, 48 may be brought online.

Depending on the level of power output required by the system 30 at any given time, the AD turbine 40 may be shutdown after the IG turbine 31 and/or the steam turbine 46, 48 are online. Preferably, the AD turbine 40 is used to provide relatively quick power output when the system 30 is first started, such as after a maintenance shutdown, during initial system startup, or as required to produce daily peak output to follow typical electric consumer use profiles. In this way, the IG turbine 31 and steam turbines 46, 48 may be operated in a relatively long-term capacity and at near constant output level(s). This decreases wear and subsequent maintenance intervals with regard to these turbines. The AD turbine 40 may then be used to provide variable additional power when demand on the system 30 is high. The AD turbine 40 may also be left online during shutdown of the IG turbine in order to keep the HRSGs 36, 44 in a state of hot stand by for enhanced system start/stop cycling duty capabilities.

Thus, the system 30 of the present invention is uniquely suited to provide adequate power during high or peak power demand, but does not generate excess power during low demand periods. By using one or more AD turbines to boost system output during the peak periods, the larger IG and steam turbines do not require undesirable fluctuation of their output levels. This near constant, stable output level increases both the stability and longevity of the system as a whole, thereby requiring less maintenance and lowering expenses associated therewith.